

HUNGARY

FRENKL, Robert; OSALAY, Laszlo; Institute of Pathological Physiology of the Medical University (Orvostudomanyi Egyetem Korelettani Intezete), Budapest, and Department of Medicine of the Hungarian College of Physical Education (Magyar Testnevelesi Foiscola Orvostudomanyi Tanszeke).

"Effect of Regular Muscle Activity on the Functioning of the Adrenal Cortex of the Rat."

Budapest, Kiserletes Orvostudomany, Vol 14, No 5, Oct 62,
pp 473-478.

Abstract: [Authors' Hungarian summary abridged] Adrenal cortical function of rats was studied. The animals were made to swim daily to exhaustion over a six week period. After three weeks, the adrenals became hypertrophic, corticosterone synthesis and secretion and aldosterone synthesis increased. After six weeks, although the hypertrophy was even more pronounced, the synthesis and secretion of corticosterone was not in excess of those of the controls. This confirms older observations of a dissociation between morphological and functional changes. [17 references, 1/1 predominantly Hungarian, rest Western.]

CSALAY, L.; FRENKL, R.; HEGYVARY, Cs.

"Ulcerogenic action of chronic neurogenic stimulation in the rat. Acta physiol. acad. sci. hung. 22 no.1:81-87 '62.

1. Institute of Pathophysiology, Medical University, Budapest.
(STOMACH ULCER) (METHIONINE) (ELECTRICITY)

CSALAY, L.; FRENKL, R.

Correlation between the hormone secreting and synthesizing activities of the adrenals and the changes in systemic reactivity in the course of the adaptation syndrome. Acta physiol. acad. sci. hung. 22 no.2: 135-144 '62.

1. Institute of Pathophysiology, Medical University, Budapest.
(ADAPTATION, PHYSIOLOGICAL) (ADRENAL CORTEX HORMONES)
(ADRENAL GLANDS)

HUNGARY

CSALAY, L., FRENKL, R., MAKARA, G., HEGYVARI, C., and KEMENY, T., of the Institute of Pathophysiology, Medical University, Budapest [Original version not given].

"Correlation Between Adrenal Activity and Experimental Cardiopathy"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricæ, Supplement to Vol 22, 1963; pp 13-14.

Abstract [Authors' English summary, modified]: The correlation between experimental cardiopathy and adrenal activity, the role of the adrenals in the genesis of the cardiac lesion produced by the cardiopathogenic diet has been investigated. Rats subjected to adrenalectomy and treated with prednisone developed grave liver lesion prior to the appearance of myocardial lesions in response to the cardiopathogenic diet. Chronic ACTH treatment caused aggravation of the cardiopathy and brought about hepatic lesions. The effects of the salt composition of the diet, increased protein, fat and vitamin D₂ intake were also investigated.

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HUNGARY

CSENYI, Laszlo, Dr., SOE, Jozsef, Dr., FREMKL, Robert, Dr; Medical University of Budapest, Institute of Pathophysiology (Budapesti Orvosi Tudomanyi Egyetem, Kozaleitani Intezet).

"The Testing of Adrenal Function in Experimental Hypertension,"

Budapest, Orvosi Hetilap, Vol 104, No 15, 14 Apr 63, pages 683-686.

Abstract [Authors' Hungarian summary] Rats made hypertensive by neurogenic stimulation showed an elevation of adrenal secretion on the fifth week of the experiment which normalized again on the seventh week. Hypertension proceeded slightly the increased adrenal function. In hypertension produced by continuous doses of tri-o-cresylphosphate, the corticosterone level of the venous blood of the adrenals rises on the eighth week. In the twelfth week hyperfunction was observed in some animals while most of them showed a hypofunction of the adrenals. The hormone synthesizing ability of the adrenals showed similar changes. The hypertension proceeds the increase in adrenal function it is therefore unlikely that the adrenals would have a primary role in the development of hypertension. The morphological picture, weight of the adrenals does not change in proportion with the changes in hormone production or synthesis. 4 Eastern European, 17 Western references.
171

... 13 ...

POSCH, E.; FRENKL, R.; CSALAY, L.

Adrenal activity in experimental intestinal obstruction. Acta
chir. acad. sci. Hung. 5 no.2:161-164 '64.

1. Institute of Pathophysiology (Director: Prof. J. Sos),
University Medical School, Budapest.

FRENKL, Robert; CSALAY, Laszlo; MAKARA, Gabor; SOMFAI, Zsuzsa; SELMECI, Laszlo;
Technikai asszisztens: OLTVANYI, Nenia

Effect of systematic muscular activity on the serotonin sensitivity
in rats. Kiserl. orvostud. 16 no.4:391-393 Ag '64.

1. Budapesti Orvostudomanyi Egyetem Korelettani Intezete.

PREMKL, R.; CSALAY, L.; MAKARA, G.; HARMOS, G.

Antiulcerogenic effect of exercise in rats. Acta physiol. accl.
sci. Hung. 25 no.1:97-100 '64.

1. Institute of Pathophysiology, University Medical School,
Budapest and Hungarian School of Physical Training, Budapest.

L 1989-66

ACCESSION NR: AT5024298

HU/2505/64/025/002/0199/0202

AUTHOR: Frenkl, Robert; Csalay, Laezlo; Makara, Gabor, Somfai, Lszsza

TITLE: Effect of regular muscle activity on the histamine sensitivity of the rat

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 25, no. 2, 1964,
199-202

TOPIC TAGS: rat, muscle physiology, myology, animal physiology, biochemistry

ABSTRACT: Rats forced to swim regularly showed a decreased histamine sensitivity from the ninth day on. The decrease in the acid secretion by the stomach, observed in previous experiments to appear in the ninth week of regular swimming, may be due only in part to a change in histamine sensitivity. The change in the reaction of animals in training can not be considered to be due to a general change in systemic reactivity because the effect of carbaminoylecholine was the same in both groups.
"The authors are gratefully indebted to Miss X. Oltvanyi for technical assistance."
Orig. art. has: 4 graphs.

Card 1/2

L 1989-66

ACCESSION NR: AT5024298

ASSOCIATION: Institute of Pathophysiology, University Medical School, Budapest

SUBMITTED: 00

ENCL: 00

SUB CODE: LS

NR REF Sov: 000

OTHER: 008

JPES

Card 2/2 DP

L 9764-66

ACC NR: AP6001957

SOURCE CODE: HU/0018/65/017/001/0074/0076

AUTHOR: Makara, Gabor; Frenkl, Robert; Csalyay, Laszlo--Chalai, L.

ORG: Institute of Pathophysiology, Medical University of Budapest, Budapest
(Budapesti Orvostudomanyi Egyetem Korelettani Intezete) 22
OC

TITLE: Correlation between the development of ulcer and histamine content of the gastric secretion in rats

SOURCE: Kiserletes Orvostudomany, v. 17, no. 1, 1965, 74-76

TOPIC TAGS: histamine, biologic secretion, biochemistry, endocrinology, pathology, gastroenterology, digestive system disease

ABSTRACT: In cases of anaphylactoid ulcer in rats, the histamine content and concentration of the gastric juice in stomachs with eroded walls is lower than in those with intact walls. The phenomenon may be caused by a rediffusion of the liberated histamine. Ildiko Sasvari served as technical assistant for this work.
Orig. art. has: 2 figures. [JPRS]

SUB CODE: 06 / SUEM DATE: 24May64 / ORIG REF: 002 / OTH REF: 006

OC
Card 1/1

MAKARA, G.B.; CSALAY, I.; FRENKL, R.; SOMFAI, Zsuzsa; SZEPESZKI, E.

Effect of capsaicin on experimental ulcer in the rat. Acta med.
acad. sci. Hung. 21 no.2:213-216 '65.

1. Pathophysiological Institute, University Medical School,
Budapest, and Research Institute of Experimental Medicine,
Hungarian Academy of Sciences, Budapest. Submitted January
15, 1965.

MAKARA, G.; CSALAY, L.; FRENKL, R.; SOMFALI, Zsuzsa

The effects of serotonin following desensitization with capsaicin.
Acta physiol. Acad. sci. Hung. 27 no.1:21-25 '65

1. Institute of Pathophysiology, University Medical School,
Budapest.

L 15481-66

ACC. NR: AT6007428

SOURCE CODE: HU/2505/65/026/001/0039/0039

AUTHOR: Frankl, R.; Csaly, L.; Somfai, Zauza; Zelles, T.; Sos, J.

ORG: Institute of Pathophysiology, Medical University of Budapest, Budapest
(Budapesti Orvostudomanyi Egyetem, Korelettani Intezet) 13 B+1

TITLE: Effect of regular muscular activity on factors involved in the pathogenesis of experimental cardiopathy. This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1961. 7

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 39

TOPIC TAGS: cardiovascular system, rat, protein, gamma globulin

ABSTRACT:

The effect of muscle activity on the factors involved in the pathogenicity of the cardiopathogenic diet S-65 has been studied. Rats kept on the cardiopathogenic diet and forced to swim daily had significantly lower blood cholesterol levels than the rats which were kept on the diet without exercise. Comparable values were obtained from the control animals and those which were forced to swim. It

Card 1/2

I 15481-66

ACC NR: AT6007428

is known from the literature that the blood lipid level is lowered by exercise. This was found to be valid in chronic experiments as well and may play a role under pathological conditions. Swimming and the diet produced similar changes in the serum protein pattern (decrease of albumin, increase of globulin). In the swimming groups, the gamma globulin was higher than in the control and dietary groups. At the present stage of the experiments, only slight cardiac changes are revealed by histological examination in some of the animals kept on the cardiopathogenic diet. [JPRS]

SUB CODE: 06 / SUBM DATE: none

SB

L 15878-66

ACC NR: AT5007454

SOURCE CODE: HU/2505/65/026/00x/0053/0053

AUTHOR: Csányi, L.; Frenkl, R.

ORG: Institute of Pathophysiology, Medical University of Budapest (Budapesti Orvostudományi Egyetem, Korelettani Intézet)

19

TITLE: Prednisolone elimination during stress [This paper was presented at the 29th Meeting of the Hungarian Physiology Society held in Szeged from 2 to 4 July 1964.]
SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1964, 53TOPIC TAGS: ACTH, gland, corticosteroid, endocrinologyABSTRACT:

The mechanism of two earlier observations has been analyzed by a study of steroid elimination. 1) Rise in the blood corticosterone level following short-term ACTH administration, and the reversal in the direction of the effect of this neurogenic stimulation after prolonged ACTH administration during which the adrenals are not depleted. 2) Following ACTH treatment for 10 days, the corticosterone level of the peripheral blood is normal although the reactivity of the animals undergoes a change as if adrenal cortical hyperfunction were present. In the present in-

Card 1/2

L 15878-66

ACC NR: AT6007454

vestigations it has been demonstrated that prednisolone is eliminated at a reduced rate following acute neurogenic stimulation. This effect is observed both after intraperitoneal and intravenous ACTH administration. The difference between the controls and stimulated animals becomes significant in 30 minutes. The effect becomes even more marked following a short term ACTH treatment with low doses. The rate of prednisolone elimination is significantly increased in the group treated with ACTH for 10 days. The results are discussed from the aspect of the two phenomena outlined above. [JPRS]

SUB CODE: 06 / SUBM DATE: none.

Card 2/2

TRET'YAKOV, A.F.; SHCHEPOT'YEVA, Ye.S.; CHERNYKH, G.A.; FRANKLAKH, Eh. (Moskva)

New method of therapy using alpha-radiating radioactive isotopes
(thorium C, thorium Cl). Klin.med. 37 no.10:105-109 O '59.

1. Iz radiologicheskoy laboratori (zaveduyushchiy - prof. Ye.S.
Shchepot'yeva) TSentral'nogo instituta kurortologii (direktor - kand.
med.nauk G.N. Pospelova).
(THORIUM radioactive)

(MIRA 13:2)

FRENKLAKH, Kh.G.

Case of non-glycemic diabetes of syphilis etiology treated with penicillin. Vest. vener., Moskva No.1:50 Jan-Feb 52. (CIML 21:4)

1. Departmental Physician. 2. Of the Department of Skin and Venereal Diseases (Head--Prof. V.A. Rakhmanov), First Moscow Order of Lenin Medical Institute.

ROBINER, I.S.; PRENEILAKH, Kh.G.

Effect of chloral hydrate and of amytal sodium on electrical activity
of the brain in man. Zhur.vys.nerv.deiat. 4 no.4:494-501 Jl-Ag '54.

(MIRA 8:3)

1. Laboratoriya elektrofiziologii Instituta mozga Ministerstva
zdravookhraneniya SSSR i kliniki kozhnykh bolezney 1-go MOLMI.

(ELECTROENCEPHALOGRAPHY,

eff. of amobarbital & chloral hydrate)

(BARBITURATES, effects,

amobarbital, on EEG)

(CHLORAL HYDRATE, effects,

on EEG)

TRET'YAKOV, A. F.; SHCHEPOT'YEVA, Y. S.; FRENKLAKH, Kh. G.

Treatment of chronic eczema with radioactive bandages containing active substances of thoron decay products (alpha therapy). Vest. derm. i ven. 34 no.1:35-41 Ja '60. (MIRA 1A:12)

1. Iz radiologicheskoy laboratori (zav. - prof. Ye. S. Shchepot'yeva) Gosudarstvennogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii (dir. - kandidat meditsinskikh nauk G. N. Pospelova) i Klinicheskoy kozhno-venerologicheskoy bol'nitsy imeni Korolenko (glavnnyy vrach A. I. Pustovaya).

{ALPHA RAYS—THERAPEUTIC USE) (ECZEMA)
(THORIUM—THERAPEUTIC USE)

REUTTER, DR. R.

"Treatment of Certain Skin Diseases with Intermittent Pharmacological Sleep."

Vestnik venerologii i dermatologii (bulletin of venereology dermatology),
vol. 1, "a nru. -february 1956 (in per), Moscow.

FAL'KOVSKIY, V.B.; BORISOVICH, I.G.; ASTAKHOVA, I.A.; BROVKO, S.P.;
FRENKLAKH, Zh.M.; L'VOV, S.V.

Production of monobasic and dibasic aromatic acids. Khim.
prom. 41 no.10:735-736 O '65. (MIRA 18,11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova.

FRENKLER, Czeslaw, mgr inz.

Problems of designing river shipyards for repair and production.
Bud okretowe Warszawa 8 no.9:296-299 S '63.

1. Biuro Projektow Budownictwa Morskiego, Gdańsk.

FRENKLER, Czeslaw, mgr inz.

Problems connected with the design of river shipyards.
Bud okretowe Warszawa 9 no.4:125-128, 129 '64.

1. Design Office for Maritime Construction, Gdansk.

FRENNKLICH, M.S.

STARIK, I.Ye.; RATNER, A.P. [deceased]; GROSHKOV, G.V.; MURIN, A.N.;
STARIK, A.S.; GREBENSHCHIKOVA, V.I.; KLOKMAN, V.P.; NEFEDOV, V.D.;
LUR'YE, B.G.; ISHINA, V.A.; SMIRNOV, L.A.; YEFIMOVA, Ye.I.;
TOROPOVA, M.A.; SIMONYAK, Z.N.; FRENNKLICH, M.S.; SHCHEMEL'VA, Ye.V.,
redaktor; VODOLAGINA, S.D., tekhnicheskiy redaktor

[A collection of practical studies in radio chemistry] Sbornik
prakticheskikh rabot po radiokhimii. [Leningrad] 1956. 210 p.
(MLRA 10:1)

1. Leningrad. Universitet.
(Radiochemistry)

Frenklikh, M. S.

7-1-1/12

AUTHORS:

Starik, I. Ye., Kuznetsov, Yu. V.,
Grashchenko, S. M., Frenklikh, M. S.

TITLE:

On the Ionium Method of Determining the Age of Marine
Sediments
(K voprosu ob ioniyevom metode opredeleniya vozrasta morskikh
osadkov)

PERIODICAL:

Geokhimiya, 1958, Nr 1, pp. 3-13 (USSR).

ABSTRACT:

First the authors report on the research results which have hitherto been obtained in this field. Then they describe their own research methods and the process of analysis. Seven cores from the marine bottom of the Indian and Pacific Ocean were investigated. The content of Mn, Fe, CaO, Ra, Jo, Th and U, and its alteration with increasing depth were represented graphically. For most of the cores the obtained values for Ra, Th, Jo and U are given another time in tables. According to the distribution of the elements it can be distinguished between:
1) Nearshore sediments (cores 2 and 3). The distribution of ionium and radium is difficult to be explained, they are not in the

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2

On the Ionium Method of Determining the Age of Marine
Sediments.

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radioactive equilibrium. This is due to external influences.

2) Sediments of average kind (core 1). The distribution of
the two elements remains unclear, there is, however, already
a connection in distribution.

3) Deep sea sediments (cores 4, 5, and 7). The radium concen-
tration is reduced with increasing depth; several maxima and
minima are explained by the changing conditions during sedimenta-
tion. The vertical distribution of ionium corresponds completely
to that of radium.

Hence it can furthermore be concluded:

A migration of radium in sediments does not take place. The sedi-
mentation velocity in the marine regions of cores 4 and 5 changed
only to a little extent with the time. In all cores investigated
the concentration of uranium and thorium remains constant along the
core. In a series of cores there was an obvious connection between
the distribution of radium and ionium on the one hand and calcium
on the other hand.

There are 8 figures, 5 tables, and 13 references, 3 of which are
Slavic.

Contd p 1

ASSOCIATION: Radium Institute imeni V. G. Khlopin, AN USSR, Leningrad
(Radiyevyy institut im. V. G. Khlopina AN SSSR, Leningrad).

~~FRUMKIN, R.~~ AND ~~ANTSELM, A.~~

"High Chromium Stainless and Heat-Resistant Steels", Metallurgizdat, 1945.

"Research in Corrosion of Metals (Issledovaniya Po Korroziyi Metallov)".
Published by--Inst. of Physical Chemistry, USSR Academy of Sciences, Moscow--1951.
Translation--ATIC-79-X2-D
F-TS-L030-A/V.

FRINIKS, S.M.

Review of research in the field of conditioned reflexes and associated problems. Zhur.nevr. i psikh. 56 no.11:893-896 N '56.

1. Institut psichiatrii Londonskogo universiteta, Psichiatriceskaya bol'niitsa imeni Modnisi.
(REFLEX, CONDITIONED,
Review (Eng))

S/020/61/139/005/008/021
B104/B201

AUTHORS: Kukin, V.D., and Frenklin, A.R.
TITLE: Construction of the scattering matrix in nonlocal theories
PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 5, 1961,
1089 - 1092

TEXT: The authors have studied certain possibilities of introducing a change of a "nonlocal" character into the scheme of the S-matrix as it is found in the local theory. For this purpose, the authors used the graph technique, and the present study therefore proceeds from the representation $S = T \{ \exp[i \int \mathcal{L}(x) dx] \}$ of the S-matrix. In the theory with an indefinite metric there exists a unitary "total" S-matrix which associates both physical and nonphysical states. It is necessary to set up a physical scattering matrix that associates the physical states only. This physical scattering matrix S' which is obtained by projecting S onto the subspace of the physical states, is nonunitary. When the S-matrix is set up in the natural manner in the theory of nonlocal interactions, a discontinuity arises between the definition of T products and the definition of ordinary products of field operators. Following a detailed discussion of these
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Construction of the scattering ...

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B104/B201

examples the possibility is inferred of constructing a scattering matrix of the nonlocal theory, to be based upon a difference between the definition of chronological coupling and that of ordinary coupling. A new nonlocal definition of chronological coupling is introduced, without changing the definition of ordinary coupling. In other words, the nonlocal causal function $\tilde{D}^c(x)$ is no more coupled in the usual manner with $D^{(-)}(x)$: $\tilde{D}^c(x) \neq \theta(x^0)D^{(-)}(x) + \theta(-x^0)D^{(-)}(-x) = D^c(x)$. The nonlocal matrix S' is represented in the form $S' = T(\exp\{i\int \mathcal{L}(x)dx\})$, where the operation of a nonlocal T product is defined with the aid of Wick's decomposition. The T product is represented as the sum of all possible normal products with all possible nonlocal chronological couplings. The disagreement between the definitions of a chronological and an ordinary coupling immediately leads to non-unitarity of S' . In general, the perturbations of unitarity of the scattering matrix constitute great difficulties, and the lost unitarity must be restored. Making the scattering matrix unitary is discussed on the strength of an example from quantum electrodynamics, and, finally, the construction of a nonlocal scattering matrix is illustrated by an example of the neutral pseudoscalar meson

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Construction of the scattering...

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theory with Lagrangian interaction. Problems of causality are discussed. N. N. Bogolyubov is thanked for valuable advice, B. V. Medvedev, M. K. Polivanov, D. A. Slavnov, and A. D. Sukhanov for useful discussions. There are 4 references: 3 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: R. Glauber, Phys. Rev. 84, 395 (1951).

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)
PRESENTED: April 8, 1961, by N. N. Bogolyubov, Academician
SUBMITTED: April 7, 1961



Card 3/3

C.A. FRENREISZ, Istvan

J.H.

Extracts of mucous membranes of stomach and small intestines in the treatment of ulcers. János Frenreisz and Gyula Róka (Tudományosztályi I. sz. Belgyógyászat Budapest). Orvosi Lapja 4, 712-13 (1948). Fifteen cc. of gastric juice is added to 100 g. fresh meat and kept at room temp. for 8 hrs. The active substances are said by known

methods and then applied both perorally and by injections to 20 persons suffering from gastric and duodenal ulcers and gastritis. Eleven persons were fully healed, 7 showed definite amelioration, and 2 were unimproved. I. F.

SOMORY, Andras, dr.; FRENREISZ, Istvan, dr.

Cured case of penetrating left ventricle injury. Orv. hetil.
97 no. 31:864-866 29 July 56.

1. A IV. ker. Fovarosi Karoly Sandor Koskorhaz Sebeszati
Osztalyanak (igaz. -sebeszfoorvos: Lazarits, Jeno dr.) es
Belgyogyaszati Osztalyanak (foorvos: Frenreisz, Istvan dr.)
kozl.

(HEART, wounds & inj.

penetrating knife wound of left ventricle, surg.
& recovery. (Hun))

(WOUNDS AND INJURIES

heart, penetrating knife wound of left ventricle,
surg. & recovery. (Hun))

PARNAS, I.; TUSHKEVICH, A.; FRENTAL, I.; LINSYUK, I.; SHEVCHIKOVSKI, V.;
BRZHOZOVSKI, Ya.; PETER, I.; SPEKHT, G.; VAVRZHUSHUK, B.; GOLOMB, M.;
SKOMECHNY, V.; IL'CHISHIN, M.

Professor Dr. Jan Danelski, 1892-1958; an obituary. Gig. 1
san. 24 no.7:92 Jl '59. (MIRA 12:9)
(DANELSKI, JAN, 1892-1958)

FRENTIU, O.

FRENTIU, O.; POPESCU, C.; ICOB, E.

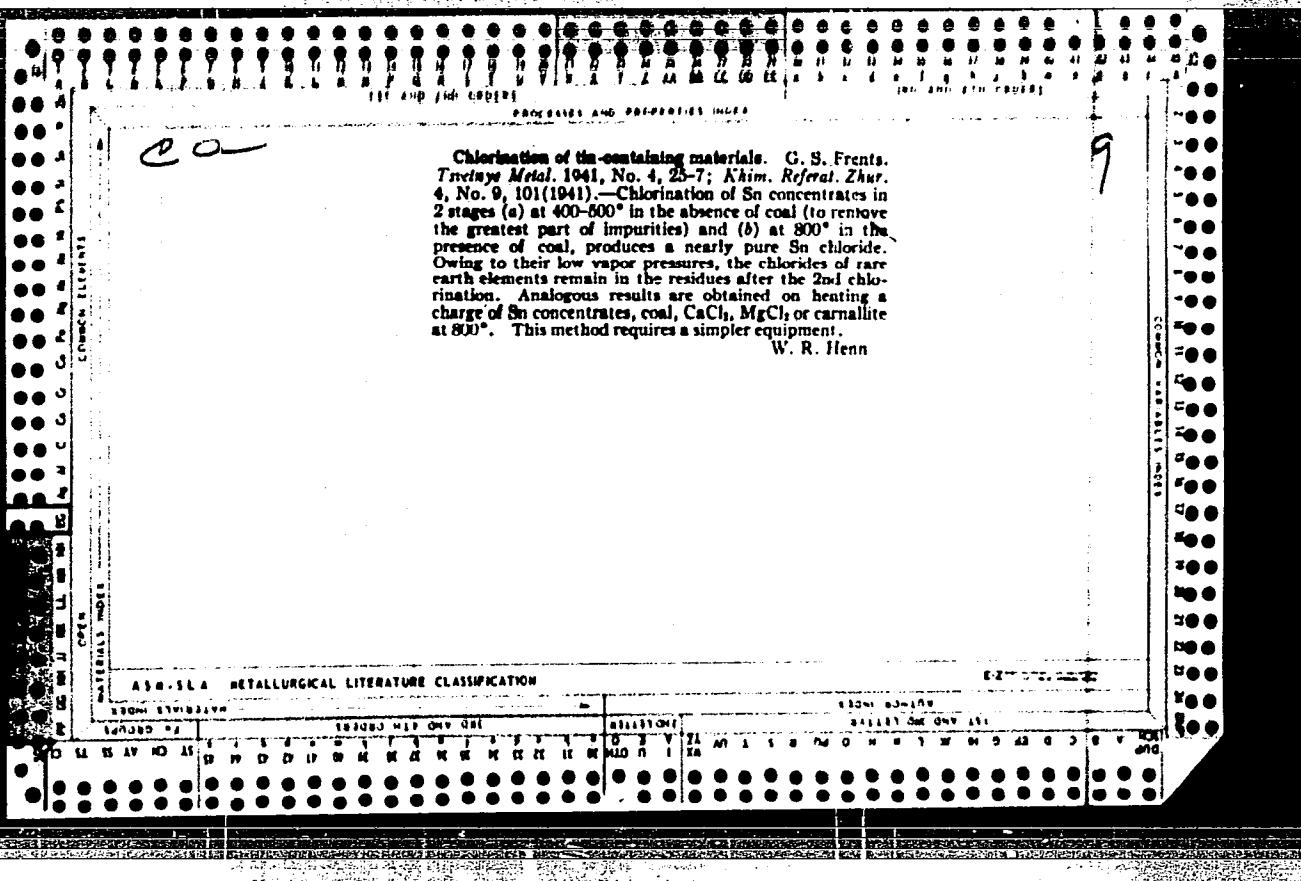
Natural regeneration of exotic species in the Ruzos Dendrologic Park,
p. 255. REVISTA PADURILOR. (Asociatia Stiintifica a Inginerilor si
Technicienilor din Romania si al Ministerului Agriculturii si Silviculturii)
Bucuresti. Vol. 71, no. 4, Apr. 1956

So. East European Accessions List Vol. 5, No. 9 September, 1956

AVRAM, Cezar, ing.; LATAN, Nicolae, ing.; TOCU, P., ing.; GRIGORE, N., ing.
FLEISER, S., ing.; SCHIMB, N., ing.; SECASIU, I., chim.;
FRENTONI, D., ing.; STOICOI, I., ing.; PILLY, N.

Casting qualities of gray cast iron from the Victoria-Calau Works at the evacuation from the furnace and after remelting in cupola furnace. Metalurgia Rum 15 no.4:305-311 Ap '63.

1. Institutul de Cercetari Metalurgice (for Avram, latan).



MENTS, G. S.

PA 57T57

USSR/Metals
Carburization
Kinetics

Dec 1947

"Question of Kinetics of Cementation of Cobalt and Nickel From Water Solutions of Metallic Zinc," G. S. Frants, B. P. Kreyngauz, Metal Inst imeni A. A. Baykov, Acad Sci USSR, 7th pp

"Izv Akad Nauk BSSR, Otdel Tekh Nauk" No 12

Object of study was to determine conditions for cementation of cobalt and nickel from sulfuric acid solutions of metallic zinc. Among results obtained was the fact that cementation of nickel and cobalt from water solutions of their salts by means of metallic zinc was possible when concentrations of hydrogen ions was pH-3.5 to 4.0. Authors also were able to determine that with similar amounts of metal cementation of cobalt was twice as active as cementation of nickel. Submitted by Academician I. P. Bardin, 15 Jul 1947.

57T57

PA 43/43T70

FRENTS, G. S.

USSR/Metals

Oxides

Chlorides

Feb 1948

"Reactions of the Interaction of Oxides and Sulfides
with Metallic Chlorides," G. S. Frents, Inst Metal
imeni A. A. Baykov, Acad Sci USSR, 4 pp

"Izv Akad Nauk SSSR, Otdel Tekh Nauk" No 2 1948

Gives results of experiments showing that chlorination
of cassiterite occurs at temperature of 800° when re-
generating agents are present. Certain compounds of
other metals react similarly in same circumstances:
ferric oxide, pyrrhotine, and sphalerite.

43T70

C A

Mechanism and kinetics of the oxidation of lead sulfide by oxygen. D. M. Chishikov, G. S. Frents, and B. Ya. Tratsevskaya (Inst. Moscow). *Tsivil. Akad. Nauk S.S.R., Otdel. Tekh. Nauk* 1949, 1382-60.-(1) Thermodynamic calcs. of the free-energy changes and the equil. consts. (with the aid of the data of Kelley) of the reactions (I) $\text{PbS} + 2\text{O}_2 = \text{PbSO}_4$, (II) $\text{PbS} + \frac{1}{2}\text{O}_2 = \text{PbO} + \text{SO}_2$, and (III) $\text{PbS} + \text{O}_2 = \text{Pb} + \text{SO}_2$, between 100 and 1200°K., show that these reactions proceed practically to completion even at the lowest partial pressures of O_2 ; the very high values of the equil. consts. permit no certain conclusion about the predominance of the 1st reaction. Similar calcs. were made for the 3 possible intermediate reactions (IV) $\text{PbS} + \text{PbSO}_4 = 2\text{Pb} + 2\text{SO}_2$, (V) $\text{PbS} + 2\text{PbO} = 3\text{Pb} + \text{SO}_2$, and (VI) $2\text{Pb} + \text{O}_2 = 2\text{PbO}$. Selected data of $\log K_p$, at 600, 800, 1000, and 1200°K., are IV, -16.524, -7.300, -1.090, and 1.498; V, -9.873, -4.720, -1.715, and 0.218; VI, 2.080, 1.801, 1.208, and 0.927. The close values for IV and V permit no conclusion as to predominance of either of these reactions, which can proceed only if the equil. is displaced through removal of SO_2 from the system. (2) Expts. were run with natural galenite ground to 0.060-0.074 mm. grain size, heated to 700, 800, or 900° in a 450 ml./min. stream of a $\text{N}_2 + \text{O}_2$ mixt. with 1, 5, 10, 20, and 100% O_2 , with direct analyses of the solid phase for PbSO_4 , Pb , PbS , and PbO by the difference. At 800° and 900°, with 5% O_2 , the amt. of PbS decreases, and the amt. of PbO increases with time; the amts. of metallic Pb and of PbSO_4 first increase, pass through a max. at about 10 min., then fall; the kinetic curves indicate consecutive reactions,

with Pb and PbSO_4 as intermediate products. The decrease of PbSO_4 is due to reaction IV; the decrease of Pb , to VI. At the lower temp., 700°, the reaction between PbS and O_2 becomes less intense; the fraction of PbS reacted in 30 min. is 18.8%, of which 13.5% corresponds to PbSO_4 . Reaction IV is equally slowed down. With 10% O_2 at 800° and 900°, the fall of PbS and the increase of PbO become faster; the amt. of PbSO_4 is masked at 800°, but reappears at 900°. At 700°, the fraction of PbS reacted in 30 min. is 28.18%, of which 9.8% corresponds to PbSO_4 , and 18.38% to PbO ; no metallic Pb is found. With 1% O_2 at 800 and 900°, the rate of consumption of PbSO_4 is greater than the rate of its formation, and consequently no PbSO_4 is detected; however, at 700°, reaction IV becomes slow, and PbSO_4 is found in the product. (3) Expts. with

mixts. of galenite with PbSO_4 , and of galenite with PbO , in a stream of pure N_2 , showed reaction IV to be considerably faster than V. Both reactions are accelerated from 700 to 800°. (4) The accumulation of PbSO_4 increases with the amt. of O_2 in the gas. In pure O_2 , the rate of formation of PbSO_4 from PbS is so fast that not enough PbS remains available for reaction IV. For that reason, the amt. of the final product, PbO , is somewhat lower, after 10 min., than with a 20% O_2 gas mixt. (5) The primary reaction is $\text{PbS} + \text{O}_2 = \text{PbSO}_4$; its rate increases with the temp. and with the concn. of O_2 . The PbSO_4 formed can react further according to IV, and the metallic Pb is oxidized according to VI. Metallic Pb thus appears as an intermediate product; it can be partially reformed through reaction V. Further possible products are the basic sulfates PbO.PbSO_4 , 2PbO.PbSO_4 , and 3PbO.PbSO_4 , which also can react with PbS .

N. Thon

FRENTS G. S.

181T78

USER/Metals - Cadmium

Dec 50

"Oxidation Mechanism of Cadmium Sulfide," D. M. Chizhikov, Corr Mem, Acad Sci USSR, G. S. Frents, B. Ya. Tratsevitskaya, Inst of Metallurgy imeni A. A. Baykov.

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 12, pp 1815-1826

Studies oxidation rate of cadmium sulfide and mech of reactions in roasting sulfide concs to obtain heavy nonferrous metals. Process may be represented by series of parallel and successive

181T78

USSR/Metals - Cadmium (Contd)

Dec 50

reactions. Gives results of thermodynamic calcns for primary and secondary reactions. Expts conducted at 300-800°C.

181T78

Frents, G.S.

7

Problems of Metallurgy. Academy of Sciences of the U.S.S.R., Moscow, 1953. On the Oxidation of Metal Sulphides with Oxygen. G. S. Frents and O. M. Chashkov. (107-116). [In Russian]. ~~Value of the Coefficient k in the Formula for Determining the Weight of Representative Samples of Iron Ore.~~ N. N. Chinkin. (153-156). The value of the proportionality coefficient k in the equation relating the weight of the representative ore sample with the diameter of the largest lumps is discussed for various conditions. Experimental results are reported. Methods of Beneficiating Krivoi Rog Iron Ores. G. I. Kudenich. (157-178). After an outline of the history and geology of the Krivoi Rog deposits, methods of beneficiating martite, magnetite and martite-magnetite ores are described. Fundamentals of Sintering Ores. A. M. Parfenov. (179-198). In this discussion of the theory of sintering the movement of water in the bed, the ignition and combustion of the fuel and the physical and chemical changes occurring at various stages of the sintering of iron ores are considered. —

~~See~~

PLG 11/1

FRENTS, G. S.

USSR/Metallurgy - Copper Sulfide Ores, Roasting Apr 53

"Mechanism of Oxidizing Copper Sulfide with Oxygen,"
D. M. Chizhikov, Corr Mb Acad Sci USSR, G. S. Frents,
B. Ya. Tratsevitskaya

Iz Ak Nauk, OTN, No 4, pp 523-532

Discusses two stages of investigation conducted at Inst of Metallurgy, Acad Sci USSR, namely: thermodynamic calcns of reactions occurring in process of oxidation of copper sulfides, and exptl investigation into oxidation of copper sulfide depending on temp changes and O concn in gaseous phase.

276T44

FRENDS 4/5

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TRIC

The Interaction of Metals with Sulphur Dioxide. E. I. Danilova and G. S. Frenets (Izdat. Akad. Nauk S.S.R.), 1955, (Tekhn. Kibernetika), [in Russian]. SO₂ reacts most freely with Cd at 600° C., and with Pb and Zn at 800° C. The general reaction is given by: (a) In the absence of normal sulphate $3xM + xSO_4 \rightleftharpoons (x - 1)MeS + MeSO_4 + MeO + (2x - 1)MeO$; and (b) in the presence of normal sulphate $3xM + xSO_4 \rightleftharpoons (x - 1)MeS + MeSO_4 + 2xMeO$. With increasing temp. the value of x increases and the proportion of sulphide to sulphate increases. Reactivity with SO₂ increases in the order: Zn → Cd → Pb. Metallic Cu has practically no reaction with SO₂ between 20° and 1200° C.

N.E.B.

PM *OTT*

FRENTS, G.S.

David Mikhailovich Chizhikov; on his 60th birthday. Izv.AN SSSR.
Otd.tekh.nauk no.1:167-168 Ja '56. (MLRA 9:5)
(Chizhikov, David Mikhailovich, 1895~)

137-1958-2-2341

FRENTS, G.S.

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 19 (USSR)

AUTHORS: Frents, G.S., Danilova, Ye.I., Kuvinov, V.Ye.

TITLE: On the Formation of Sulfates During the Oxidation of Zinc Sulfide
(K voprosu sul'fatoobrazovaniya pri okislenii sulfida tsinka)

PERIODICAL: Tr. In-ta metallurgii, AN SSSR, 1957, Nr 2, pp 42-46

ABSTRACT: The purpose of this study was to show that the chemistry of the oxidation of ZnS is similar to that of the oxidation of other heavy metals and that it passes through an intermediate stage of sulfate formation. Because of their limited thermal stability, Zn sulfates quickly decompose at the temperatures of intense oxidation of ZnS. When a sulfate of Na was used as a fixing agent and higher oxygen pressures were used during the oxidation of ZnS, large quantities of sulfates, an intermediate product of oxidation of the ZnS, were found in the reaction products.

G.F.

1. Zinc sulfides--Oxidation 2. Sulfates Formation

Card 1/1

FRENTS, G.S.

LEONIDOV, N.K.
51(5) FEB 1957 EXPLOITATION 50V/1497

Ambul'sev, S.M. Institut metal'noy i tschel'kovoy informatsii

Metallurgicheskii zhurnal, 1957, 1957, v. 1, (Metallurgy of the USSR, 1957 - 1957, vol. 1)
Moscow, Akademiya Nauk SSSR, 1956. 745 p. 3,000 copies printed.
No. (title page); I. P. Baranov, Academician; Ed. (Inside book); G. V. Popov;
Prof. M. I. O. Dzhobava.

SYNOPSIS: The book is intended for scientific workers and engineers in metallurgical plants and in the machine-building industry. It may also be used by students in advanced courses in metallurgical universities.

CONTENTS: This collection of articles covers extensively practical and theoretical developments in Soviet metallurgy during the last 10 years. The material deals with the discovery and development of the major ore deposits and the products of the metal industry in various parts of European and Asiatic USSR. Research institutions, laboratories, their locations and the names of the scientists and engineers involved are listed. Many chapters contain no many references and frequently do not cite sources. The authors claim that the scope of the contents of various personalities that it was considered beyond the scope of the coverage of such article to list them. The authors claim that the processes, methods and theories described in this book reflect the most recent developments.

Card 142

Metallurgy of the USSR (Cont.)

50V/1497

Chemistry, spectroscopy, organic chemistry, crystallography and solid state physics. Four sheets with detailed descriptions are given for the flotation of a number of sulphides. Special methods claimed at the recovery of various nonmetallic minerals of economic importance are presented. It is claimed that the problem of magnetite flotation has been satisfactorily solved by Soviet metallurgists. There are 8 Soviet references.

Chubakov, B.M. Nonferrous Metallurgy
This article contains a historical review of the more important of research and studies in this field followed by a list of the more important of research and nonferrous industries. A description is given of the methods of treatment copper, lead, zinc, aluminum, tin, and tin. Electrochemical methods and the use of oxygenated and air are regarded as the important new developments in the metallurgical industry.

Chubakov, B.M. Nonferrous Metallurgy of Heavy Nonferrous Metals

This paper deals with the various aspects of roasting sulphide concentrates. The mechanism of the oxidation of sulphide has been the object of intensive studies. Smelting of sulphide is mentioned. A

SYNOPSIS:
The author lists bauxite and sillimanite deposits used for processing alumina.

Metallurgy of the USSR (Cont.)

50V/1497

New method is undergoing tests on a semi-industrial scale in which the reduction is done at high temperature and which results in liquid products of low viscosity. There are 77 references, 56 Soviet, and 9 German.

Dobrov, M.P. (Bogoslov). Metallurgy of Heavy Nonferrous Metals
This article gives an outline of the state of art of metallurgy in the USSR from 1950 to 1957. The development stages are presented in chronological order and the location of deposits, metallurgical plants, research laboratories are mentioned. Some production figures are given. New species is delivered to the production of nickel. It is stated that a new and improved method will have to be developed to improve production. The use of carbonyl nickel (presumably a variation of the Mond process) is to be adopted "within the next few years." There are 75 Soviet references.

Dobryakov, A.I. The Metallurgy of Aluminum
The author lists bauxite and sillimanite deposits used for processing alumina.

The author lists bauxite and sillimanite deposits used for processing alumina.

Card 142

FREAKS, G.S.

PAGE 1: WORK EVALUATION

SOW/R/50
SOW/12-5

Academy and SSSR. Institute metallurgi

Metallurgy, Institute of Problems of Chemico-physical Leaching and Metal Leaching¹
(Physicochemical Leaching Research Institute of Problems of Chemical Leaching and Metal Science) Moscow,
Tselinnoe, 1900, T-1, P. (Verlag Techn. Text., 1971, pp. 5) Extra slip
Leningrad, 2,000 copies printed.Submitting Agent: Academy and SSSR. Institute metallurgi: Inst. of Publishing House:
Rep. Ed.: I.P. Bartsch; Academy of Sciences (Inventor); Ed. of Publishing House:

V.A. Klimov; Tech. Ed.: T.P. Polozova.

REPORT: This collection of articles is intended for metallurgists and metal
researchers.CONTENTS: The collection contains articles on metallurgy, metal physics, and
metastable research methods. Separate articles discuss the structure
and properties of some metals and alloys. The effects of cold treatment and
heating on the properties of alloys are analyzed, and statements andEduard, J.I. and A.M. Semenov. Study of the Silver Absorption Capacity
of Magnesium Oxide and Calcium Oxide 15Peres, N. P., V.A. Klimov, and A.M. Semenov. Effect of Deoxidation
by Titanium Alloy on the Properties of Copper-Nickel Alloys 22Rabinowich, L.A. On the Problem of Melting the Formula of Mechanical
Properties of Alloys. On the Dependence of Properties of Metallic
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Nickel-Yttrium-Silicate 36Kashina, V.B. Utilization of Silver Oxide at Nonferrous Metallurgical
Plants 38Peres, G.I. and Yu.I. Rabinowich. Interaction of Silver Oxide with
Nonferrous Metals 42Al'zamov, O.Ya. and G.M. Zhdanov. Interaction of Selenium with
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Effect of the Passivating Film of Some Nonferrous Metals on
Properties of the Alloys 55Bogdanovich, I.A. and A.M. Rabchikov. Effect of Cold Work on the
Properties of Aluminum-Copper and Tin-Copper-Aluminum Alloys
Under Thermal Aging Conditions 59Bogdanovich, I.A. and V.G. Moshkina. Dependence of Metal Structure on Change
of Temperature Upon Annealing Gold 63Bogdanovich, I.A., and V.G. Moshkina. Dependence of Tensile Strength Metal
Alloy on Change in the Plastic Deformation Size 69

Olshev, V.V. Effect of Deoxidation of Simple Steel 75

Toropov, I.I. and V.S. Polyakova. Study of the Heat Resistance of
Passive Alloys with Cobalt, Tin, Ruthenium, Chromium, and
Alumina, by the Oxidation Method 79Gorodetskii, N.Y. and V.G. Gordeev. Probability Curve of the
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Growth of the Oxide Layer 83Gorodetskii, N.Y. and V.G. Gordeev. Probability Curve of the
Growth of the Oxide Layer 83Gorodetskii, N.Y. and V.G. Gordeev. Probability Curve of the
Growth of the Oxide Layer 83

155

NOVIKOVA, Ye.I. (Moskva); FRENTS, G.S. (Moskva)

Studying reactions of zinc and copper sulfides with the products
of their oxidation by physicochemical and chemical analyses.
Izv. AN. SSSR. Otd. tekhn. nauk. Mat. i topl. no.3:31-36 My-Je
'61. (MIRA 14:7)
(Thermal analysis) (Sulfides--Metallurgy)

CHIZHIKOV, David Mikhaylovich; FRENTS, Galina Sergeyevna; TRATSEVITSKAYA,
Betti Yakovlevna; CHERNOV, A.N., red.izd-va; RYLINA, Yu.V.,
tekhn.red.

[Chlorination process for the metallurgy of tin] Khloridnaia
metallurgiia olova. Moskva, Izd-vo Akad.nauk SSSR, 1962. 114 p.
(MIRA 15:5)

1. Chlen-korrespondent AN SSSR (for Chizhikov).
(Tin—Metallurgy) (Chlorination)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620013-1

KUVINOV, V.Ye.; FRENTS, G.S.

Volatilization of lead during the roasting of sulfide concentrates
in a fluidized bed. Trudy Inst.met. no.10:162-167 '62.
(MIRA 15:8)

(Sulfides—Metallurgy) (Fluidization)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620013-1"

FRENTS, Galina Sergeyevna; CHIZHIKOV, D.M., otv. red.; CHERNOV,
A.N., red.; KYLINA, Yu.V., tekhn. red.

[Oxidation of metal sulfides] Okislenie sul'fidov metal-
lov. Moskva, Izd-vo "Nauka," 1964. 189 p.

(MIRA 17:4)

1. Chlen-korrespondent AN SSSR (for Chizhikov).

METHODS

HUNGARY

FRENYO, Vilma, and HEGEDUS, Andras, Central Laboratory (Kozponti Laboratorium), Semmelweis Hospital (Semmelweis Korhaz), Council of Pest Megye (Pest megyei Tanacs).

"Micromethod for the Determination of the Inorganic Phosphorus Content and Phosphatase Activity of Serum"

Budapest, Kiserleti Orvostudomany, Vol 18, No 6, 1966; pp 669-672.

Abstract: Through suitable modifications of the determination of phosphate in the form of the phosphovanadomolybdate complex, a micromethod was elaborated for the determination of the concentration of the inorganic phosphate as well as of the phosphatase activity of serum. The procedure requires 0.1 ml of serum. The method yields accurate and reliable results; the procedure is simple and rapid. 4 References, of which 2 Hungarian, 1 USSR and 1 German.
Manuscript received 9 May 66.

1/1

FRENYO, Vilmos, dr., tanszekvezeto; SZENDROI, Z.

Determination of the peroxide decomposing activity of the blood plasma by a new method. Biol kozl 11 no.1:11-15 '63.

1. Eotvos Lorand Tudomanyegyetem Novenyellettani Tanszek, Budapest (for Frenyo). 2. Budapesti Orvostudomanyi Egyetem Urologiai Klinika. Igazgato Dr. Babics Antal akademikus (for Szendroi).

FRENYO, Vilmos, a biologiai tudomanyok kandidatusa, egyetemi tanar

Significance of phytotrone in phytophysiological research.
Magy tud 70 no.12:811-815 D'63.

1. Eotvos Lorand Tudomanyegyetem.

FRENYO, Vilmos

Changes of the intercellular gas mixture due to external conditions. Botan kozl 51 no.1&25-34 '64

1. Chair of Phytophysiology, Lorand Eotvos University, Budapest,
VIII., Muzeum korut 4/a.

FRENZL, Bohdan; HASEK, Milan; HASKOVA, Vera; HRABA, Tomas

Immunologic considerations on embryonic parabionts of duck
and chick. Cesk. biol. 4 no.1:1-6 Jan 55.

1. Biologicky ustav CSAV, experimentalni biologie a genetika
a Biologicky ustav lekarske fakulty Karlovy university, Praha.
(PARABIOSIS,

immunol. aspects of embryonic parabionts of duck
& chick)

(EMBRYO,

immunol. aspects of duck & chick parabionts)
(HEMAGGLUTINATION,

immunol. aspects of duck & chick embryonic
parabionts)

BRDICKA, R.; KREN, V.; FRENZL, B.; STARK, O.

Interlineal relationships in rats. *Folia biol.* 8 no.6:352-359 '62.

1. Department of General Biology, Faculty of General Medicine,
Charles University, Prague.

(SKIN TRANSPLANTATION) (ERYTHROCYTES) (ANTIGENS)

STARK, O.; FRENZL, B.; KREN, Vl.; Technicka spoluprace L. Vojcik a V. Sestakova

Some problems of transplantation immunity and immunological tolerance.
Cas.lek.cesk 100 no.20:621-626 19 My '61.

1. Ustav pro obecnou biologii KU v Praze, prednosta prof. dr. B. Sekla.

(TRANSPLANTATION immunol) (PARABIOSIS)

FRENZL, B.; KREN, V.; STARK, O.; VESELY, P.; Technicka spoluprace V. Sestakova,
L. Vojcik

Immunology of rat iso-antigens. Cas.lek.cesk 100 no.20:626-631
19 My '61.

1. Ustav pro obecnu biologii KU v Praze, prednosta prof. dr.
B. Sekla.

(ERYTHROBLASTOSIS FETAL exper)

STARK, O.; KREN, V.; FRENZL, B.; BRDICKA, R.

Attempt to induce a "graft versus host" reaction in grown tolerant chicks and the causes of its failure. Folia biol. 7 no.4:243-251 '61.

1. Department of Biology, Faculty of General Medicine, Charles University, Prague.
(TRANSPLANTATION immunol.) (SKIN TRANSPLANTATION immunol.)

SEDLACEK, Jindrich; DOSKOCIL, Milar; OLSANSKY, Petr; FAKR, Jaroslav;
FRENZL, Bohumil

Comments on the problem of biological and social determinism
in the evolution of man. Acta Univ. Carol. [med.] (Praha) 10
no.8:607-620 *64

1. Fysiologicky ustav fakulty vseobecneho lekarstvi University
Karlovych v Praze (prednosta prof. MUDr. F.Karapek, DrSc.);
Anatomicky ustav fakulty vseobecneho lekarstvi University Kar-
lovych v Praze (prednosta prof. MUDr. RNDr. L.Borovansky, DrSc.);
Katedra dialektickeho a historickeho materializmu fakulty
vseobecneho lekarstvi University Karlovych v Praze (vedouci doc.
RSDr. J.Premoail, CS:.) a Biologicky ustav fakulty vseobec-
neho lekarstvi University Karlovych v Praze (prednosta prof.
MUDr. RNDr. B.Sekla, DrSc.)

FREPOН, N.R.

Using daylight bulbs for controlling the color of sugar. Sakh.prom. 27
no.7:37-39 Jl '53. (MLRA 6:6)

1. Sakharnyy zavod imeni Stalina.
(Sugar industry) (Fluorescent lighting)

FREPON, N.R.

Choice of an electric drive for the centrifuge. Sakh.prom. 28
no.5:8-11 '54. (MLRA 7:9)

1. Sakharnyy zavod im. Stalina.
(Electric driving) (Sugar industry--Equipment and supplies)

FREPON, N.R.

Results of testing electric equipment. Sakh.prom. 29 no.4:
15-22 '55. (MLRA 8:9)

1. Sakharnyy zavod imeni Stalina
(Electric testing) (Sugar industry--Equipment and supplies)

FREPON, N.R.

Power consumption in a sugar refinery. Sakh.prom.30 no.1:32-34
Ja '56. (MIRA 9:6)

1. Sakharnyy zavod imeni Stalina.
(Sugar industry)

FREPON, N.R.

Investigating the operation of electric drives for centrifugals.
Sakh.prom. 30 no.7:19-23 J1 '56. (MLRA 9:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharinoj promyshlennosti.
(Centrifugals) (Electric driving)

FREPON, N.R.

Electric drive of the PN-100 high-speed centrifugal. Sakh. prom.
32 no.11:22-25 N '58.
(MIRA 11:12)

1.Tsentral'nyy nauchno-issledovatel'skiy institut sakharney promysh-
lennosti.

(Sugar machinery) (Electric driving)

FREPON, N.R.

Ways for economizing electric power in sugar factories. Sakh.
prom.33 no.3:17-21 Mr '59. (MIRA 12:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy
promyshlennosti.
(Sugar industry--Equipment and supplies)

FREPON, N.R.

Automatic regulation of the operating speed of the beet slicer.
Sakh. prom. 33 no.11:51-56 N '59 (MIRA 13:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy
promyshlennosti (TsINS).
(Sugar machinery)

YEREMENKO, Boris Antonovich; BARABANOVA, Kseniya Aleksandrovna; SUSOROV,
Boris Grigor'yevich; FEPON, Nikolay Raymondovich; TSENZURA,
Aleksandr Ivanovich; LOSEVA, R., red.; SERGIYENKO, L., red.;
SHAFETA, S., tekhn.red.

[Automatic control of the processes of beet-sugar manufacture]
Avtomatizatsiya protsessov sveklosakharного proizvodstva. Kiev,
Gos.izd-vo tekhn.lit-ry USSR, 1960. 133 p. (MIRA 13:8)
(Sugar manufacture) (Automatic control)

FREPON, H.R.

Determining the required capacity and selecting the electric drive
for beet washers. Sakh.prom. no.4:11-59 Ap 60. (MIRA 13:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy
promyshlennosti.
(Sugar industry --Equipment and supplies)
(Sugar beets)

FREPON, N.R.

Electric power consumption at sugar-raffinade factories.
Sakh.prom. 34 no.8:52-54 Ag '60. (MIRA 13:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut
sakharinoj promyshlennosti.
(Sugar industry) (Electric power)

FREPON, N.R.

Power expended by separation plants. Sakh.prom. 34 no.11:30-36
N '60. (MIRA 13:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharnoy
promyshlennosti.
(Sugar industry--Equipment and supplies)

FREPON, M.R.

Determination of the required capacity and selection of an
electric drive for the beet slicers. Sakh. prom. 34 no. 12:38-
45 D '60. (MIR 13:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut zakharnoy
promyshlennosti.

(Sugar beets)

FREPON, N. R.

Cand Tech Sci - (diss) "Study of loads of technological equipment in sugar mills; selection of power levels for transmissions and turbogenerators." Kiev, 1961. 21 pp; with diagrams; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Kiev Technological Inst of the Food Industry); 150 copies; price not given; (KL, 10-61 sup, 219)

YEREMENKO, B.A.; BARABANOVA, K.A.; SUSOROV, B.G.; FREPON, N.R.; SHAKIN,
A.N., kand. tekhn. nauk, otv. red.; KOL'TSOV, I.I., tekhn. red.

[Measurement and control of hydrogen ion concentration (pH) in
the products of sugar manufacture] Izmerenie i regulirovanie kon-
tsentratsii vodorodnykh ionov (pH) v produktakh sakharного pro-
izvodstva. Kiev, TSentr. nauchno-issl. in-t sakharoi pro-
myshl., 1959. 45 p.

(MIRA 16:1)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharoy pro-
myshlennosti (for Shakin).
(Hydrogen-ion concentration) (Sugar manufacture)

FREPON, N. R.

Power consumption by sugar beet pumps and selection of their
electric motors. Sakh. prom. 36 no. 10:43-48 O '62.
(MIRA 15:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy
promyshlennosti.

(Hydraulic conveying—Electric driving)
(Sugar beets—Transportation)

FREPON, N.R.

Determining the power used by the disk stirring devices of
crystallizers. Sakh. prom. 36 no. 12:19-23 D '62.
(MIRA 16:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharinoj
promyshlennosti.
(Sugar machinery--Testing)

GALLIOVA, J.; PRESLOVA, A.

Mass vaccination against tuberculosis in Prague in 1949-50; BCG vaccination. Cas. lek. cesk. 92 no. 4:94-101 23 Jan 1953. (CLMI 24:2)

l. Of the Department of Tuberculosis Research and Diagnosis of the Division of Microbiology and Epidemiology of the State Health Institute, Prague.

EXCERITA MEDICA Sec 4 Vol 12/1 Med. Micro. Jan 59

161. THE USE OF SULA'S TELLURITE TEST FOR THE DEMONSTRATION
OF MICROCOLONIES OF M. TUBERCULOSIS ON EGG MEDIA SUPPOSED
TO BE NEGATIVE - Použití teluritového testu podle Šuly k průkazu mikro-
kolonií Myco.tbc na vaječných půdach zdánlivě negativních - Freslova A.
and Slámová M. Výzkumný Úst. Tuberk., Praha - ROZHL. TUBERK.
1957, 17/2 (137-139)

A total of 3,767 egg media negative after 6 weeks' incubation at 37°C. were investigated with Sula's modification of the tellurite test. After the condensation water is decanted, 0.5 ml. of a 1:1,000 Ktellurite solution is spread on the surface of the medium and the result is read after 24 hr. incubation at 37°C. In this way 137 suspect cultures were discovered and 5 of them proved to be pathogenic to guinea-pigs.

Urbanek - Brno

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620013-1

FRESS, Pol' [Fress, Paul]

Human adapatation to time. Vop.psikhол. 7 no.1:43-56 Ja-F '61.
(MIRA 14:3)
(Time perception)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620013-1"

KRUTOV, P., kand.tekhn.nauk; SHCHEDRIN, A., kand.tekhn.nauk;
FRESTIN, F., arkhitektor

Sheep houses made of precast reed-reinforced concrete.
Sel.stroi. 15 no.1:25-26 Ja '60. (MIRA 15:7)
(Precast concrete construction)
(Sheep houses and equipment)
(Reed products)

FREUD, G.

Data on the mean-square convergence of Lagrangian interpolation polynomial series. Acta mat Hung 13 no.3/4:257-268 '62.

1. Mathematisches Forschungsinstitut der Ungarischen Akademie der
Wissenschaften, Budapest. Vergelegt von P.Turán.

FREUD, Geza

Freud, Geza. Restglied eines Tauberschen Satzes. I. Acta Math. Acad. Sci. Hungar. 2, 299-308 (1951). (Russian summary)

Let $v(t)$ be monotone increasing over $0 \leq t < \infty$. Let $f(t)$ be non-negative and such that $F(s) = \int_0^\infty f(t)e^{-st}dv(t)$ exists, as a Lebesgue-Stieltjes integral, for $s > 0$. If α , c_0 , and ϵ are positive constants and $F(s) = s^{\alpha(d+1)}s^{-d}[1+r(s)]$ where $|r(s)| < c_0s^\epsilon$ when $s > 0$, then there is a constant c_1 such that

$$\int_0^x f(t)dv(t) = sx^\alpha[1+\beta(x)]$$

where $|\beta(x)| < c_1/\log x$ when $x > 2$. The proof employs the Karamata method of polynomial approximation.

R.P. Agnew (Ithaca, N.Y.).

SO: Mathematical Review, Vol. 14, No. 4, April 1953.

FREUD, G.

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Freud, G. Über die Mohrsteinsche Berechnung des H_3
Moleküls. Acta Phys. Acad. Sci. Hungar. 1, 325-328
(1952). (Russian summary)

If $y(x) = \sum_{n=0}^{\infty} a_n x^n$ is a solution of

$$[(x^2 - 1)y']' + \left(\sum_{k=0}^{\infty} c_k x^k \right) y = 0,$$

then $\alpha_0 = \lim_{n \rightarrow \infty} 2na_{2n}$ and $\alpha_1 = \lim_{n \rightarrow \infty} (2n-1)a_{2n-1}$ exist.
Also

$$y(x) = \frac{1}{2} [(\alpha_1 - \alpha_0) \log(1+x) - (\alpha_1 + \alpha_0) \log(1-x)] + \sum_{n=0}^{\infty} b_n x^n,$$

where $|b_n| < N/n^{1/2}$. F. M. Stewart (Providence, R. I.).

Mathematical Reviews
May 1954
Analysis

FREUD, GÉZA

Mathematical Reviews
Vol. 15 No. 3
March 1954
Mathematical Physics

7-8-54
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Freud, Géza. Sur le calcul du champ magnétique d'une
courante électrique parallèle. I. Magyar Tud. Akad.
Aktalm. Mat. Int. Közl. 1 (1952), 377-387 (1953).
(Hungarian, Russian and French summaries)

The author computes the magnetic field generated by
electric currents of equal magnitude and opposite direction
flowing in two parallel cylinders. The frequency is assumed
to be small, the field is assumed quasi-stationary, and the
changes of current distribution in each cylinder which are
due to the presence of the other cylinder are taken into ac-
count only as corrections. The results are expressed as
infinite series which converge at least as well as geometric
progressions; if the radii of the cylinder are small in com-
parison with the mutual distance, the convergence is very
rapid.

A. Erdélyi (Pasadena, Calif.).

FREUD, Géza.

Freud, Géza. Über die Konvergenz orthogonaler Polynomreihen.
Acta Math. Acad. Sci. Hungar. 3, 89-98 (1952). (Russian summary)

Let $p(x)$ be a positive weight function in $[-1,1]$ and let $\{p_n(x)\}$ denote the associated orthonormal polynomials. We assume that $(1-x^2)^a p(x) = O(1)$, $(1-x^2)^b p_n(x) = O(1)$, a and b positive. Let $p(x)f(x)$ be L-integrable and in a neighborhood of the end-points even $p(x)[f(x)]^2$ L-integrable. The author deals with the following generalization of the Dirichlet-Jordan and Hardy-Littlewood theorems:

(1) Let $f(x)$ be of bounded variation in α, β where $-1 < \alpha < \beta < 1$, and continuous at x_0 , $\alpha < x_0 < \beta$. Then the expansion $\sum a_n p_n(x)$ of $f(x)$ is convergent for $x=x_0$ with the sum $f(x_0)$. If $f(x)$ is continuous in α, β , the convergence is uniform in each part of α, β . (2) Let $a_n = O(n^{-\gamma})$, $\gamma > 0$, and $\log(|h|^{-1})(f(x_0+h)-f(x_0)) \rightarrow 0$ as $h \rightarrow 0$, $-1 < x_0 < 1$. Then the expansion converges at x_0 to the sum $f(x_0)$.

G. Szegö (Stanford, Calif.).

SO: Mathematical Review, Vol. 14, No. 5, May 1953.

FREUD, Géza.

Freud, Géza. Über die starke (C,1)-Summierbarkeit von orthogonalen Polynomreihen.
Acta Math. Acad. Sci. Hungar. 3, 83-88 (1952) (Russian summary)

The theorem of Tandori [see the preceding review] is localized and generalized as follows: If $w^{1/2}f \in L^2$ in (a, b) , and if, for a fixed $x, a < x < b$,

$$(1) \quad \sum_{k=0}^n p_k^2(x) = O(n)$$

and

$$(2) \quad \int_x^{x+h} w(t)(f(t)-f(x))^2 dx = o(|h|),$$

then

$$\frac{1}{n+1} \sum_{k=0}^n |s_k(x) - f(x)| \rightarrow 0.$$

If $a \leq q < \beta \leq b$, and if $w(x) > 0$ in (q, β) , then (1) is satisfied uniformly in every closed subinterval of (q, β) . If $0 < m \leq w(x) \leq M$ and $f(x)$ is continuous in (q, β) ,

FREUD, Geza

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then $(n\pi l)^{-1} \sum_{k=0}^n s_k(x) \rightarrow f(x)$ uniformly in $\langle \alpha, \beta \rangle$. The corresponding results are familiar for trigonometrical Fourier series. W.W.Rogosinski (Newcastle-on-Tyne).

SO: Mathematical Review, Vol. 14, No. 5, May 1953, pp. 439-522.

FREUD, G.

Freud, G. Über einen Reihentheoretischen Satz von Fejér. Acta Math. Acad. Sci. Hungar. 3, 173-176 (1952). (Russian summary)

A function $f(z) = \sum a_n z^n$ which is regular and bounded in $|z| < 1$ and for which $\sum n |a_n|^2 < \infty$ is termed a Fejér function. For such functions, Fejér proved that the power series converge at all points $z = e^{i\theta}$ where the radial limit exists [Monatsh. Math. Phys. 28, 64-76 (1917)]. If $f(z)$ is regular, bounded, and schlicht in $|z| < 1$, it is a Fejér function. The author proves that the class of all Fejér functions forms a ring. In particular, if $\varphi_1, \dots, \varphi_n$ are regular, schlicht, and bounded in $|z| < 1$, then any polynomial in these is a Fejér function.

R.C. Buck (Madison, Wis.).

SO: Mathematical Review, Vol. 14, No. 8, Sept. 1953, pp. 713-783.

FREUD, Geza.

Freud, Geza. Restglied eines Tauberschen Satzes. II. Acta. Math. Acad. Sci. Hungar. 3 (1952), 299-307 (1953). (Russian summary)

In paper I, the author [same Acta 2, 299-308 (1951); these Rev. 14, 361] made appropriate hypotheses on the Laplace transform $\int_0^\infty f(t)e^{-\lambda t} dt$ and obtained an estimate of the function $\int_0^\infty x^m t^m f(t) dt$. Under the same hypotheses, the present paper gives an estimate of the m -fold integral of the latter function, m being a positive integer.

R.P. Agnew (Ithaca, N.Y.).

SO: Mathematical Review, Vol. 14, No. 10, Nov. 1953, pp. 935-1048.

FREUD, Geza

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Analysis

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Freud, Geza. On a Tauberian theorem. Magyar Tud.
Akad. Mat. Fiz. Oszt. Közleményei 3, 45-53 (1953).
(Hungarian)

The author gives a more elementary proof of a special case of a previous result of his [Acta Math. Acad. Sci. Hungar. 2, 299-308 (1951); these Rev. 14, 361]. In the case considered in this paper α is 1. Some of the results of the author have been obtained independently by Korevaar [Duke Math. J. 18, 723-734 (1951); these Rev. 13, 227] and Postnikov [Dokl. Akad. Nauk SSSR (N.S.) 77, 193-196 (1951); these Rev. 12, 820]. P. Erdős.

Ferenc, Mr.

"Lipot Fejér theorem of functions."
Komplemenyel, Budapest, Vol 3, No 4, 1953, p. 309

SD: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

FREUD, Geza

Mathematical Reviews
May 1954
Analysis

✓ Freud, Géza. On strong $(C, 1)$ -summability of orthogonal polynomials. Magyar Tud. Akad. Mat. Fiz. Oszt. Közleményei 3, 507-511 (1953). (Hungarian) ✓ This is the Hungarian version of a previous paper [Acta Math. Acad. Sci. Hungar. 3, 83-88 (1952); these Rev. 14, 467].

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FREUD, GEZA

Freud, Géza. On the Lebesgue functions of Lagrange interpolation. Magyar Tud. Akad. Mat. Fiz. Oszt. Közle-

ményei 3, 563-568 (1953). (Hungarian)

Let $\rho(\omega) \geq 0$ be a weight function of the class L in the finite interval $[a, b]$, $\{\rho_n(x)\}$ the associated orthonormal polynomials. We consider the Lagrange interpolation on the zeros of $\rho_n(x)$ and the corresponding Lebesgue functions $A_n(x)$. The author proves the following theorems. I. Let $[\alpha, \beta]$ be in the interior of $[a, b]$ such that $\rho(x)$ is bounded away from zero and infinity on $[\alpha, \beta]$ and $|\rho_n(x)| \leq K$ in $[\alpha, \beta]$ then $A_n(x) = O(\log n)$ uniformly in every interval in the interior of $[\alpha, \beta]$. II. Let $f(x)$ be defined in $[a, b]$ and satisfy the condition $\omega(\delta) < \delta^{1/(2\log 3^{-1})}$. Let $\rho(x)$ satisfy the same conditions as in I. Then the interpolation polynomials defined above converge uniformly to $f(x)$ in every interval interior to $[\alpha, \beta]$.

Finally, an estimate of the error of the interpolation is obtained provided $f(x)$ has a derivative of given order in $[\alpha, \beta]$ satisfying a Lipschitz condition.

G. Szegö.

FREUD, GÉZA

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Freud, Géza. Über die absolute Konvergenz von orthogonalen Polynomreihen. Acta Math. Acad. Sci. Hungar. 4, 127-135 (1953). (Russian summary)

Let $\{\Phi_n(x)\}$ be a complete orthonormal system over $(-1, 1)$ with respect to the weight function $w(x) \geq 0$, and let $f(x) \sim \sum c_k \Phi_k(x)$ where $w^{1/2}f \in L^2$. A very simple argument proves that the two conditions (i) $\sum |c_k| \Phi_k(x) = O(\pi)$ and (ii) $\sum_{k=1}^{\infty} (\pi^{-1} \sum_{n=1}^k |c_n|^2)^{1/2}$ together imply the absolute convergence of $\sum c_k \Phi_k(x)$ at x [for (ii) cf. S. B. Stečkin, Mat. Sbornik N.S. 29(71), 225-232 (1951); these Rev. 13, 229]. In the case where the $\Phi_n(x)$ are polynomials and $f(x)$ is continuous, (ii) can be replaced by $\sum_{k=1}^{\infty} n^{-1/2} f'(\pi^{-1}, f) < \infty$ where $\omega^*(\delta, f) = \max_{|\theta_1 - \theta_2| \leq \delta} |f(\cos \theta_1) - f(\cos \theta_2)|$. If $f(x)$ is of bounded variation and $w(x) \leq W(1-x^2)^{-1/2}$ then (ii) can be replaced by $\sum |n^{-1} \omega^*(\pi^{-1}, f)|^{1/2} < \infty$. [For condition (i) cf. G. Freud, Acta Math. Acad. Sci. Hungar. 3, 83-88 (1952); these Rev. 14, 467.]

W. W. Rogosinski.

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Freud, G. Über einen Satz von P. Erdős und P. Turán.
Acta Math. Acad. Sci. Hungar. 4, 255-266 (1953).
(Russian summary)

Erdős and Turán have discussed [Ann. of Math. (2) 41, 510-533 (1940), these Rev. 1, 333] the difference of two consecutive zeros of the orthogonal polynomial $p_n(x)$ associated with a given weight function $w(x)$. The author extends these results to the zeros $x_n = x_n(\pi)$ of polynomials of the form $p_n(x) + A p_{n-1}(x) + B p_{n-2}(x)$, $B \leq 0$, assuming that these zeros are all simple and real. Let $0 < m \leq w(x) \leq M$ in a sub-interval $[a, b]$ of $[-1, +1]$. We have then

$$c_1/n \leq x_{k+1,n} - x_{k,n} \leq c_2/n$$

provided $a + \epsilon \leq x_{k,n}$, $x_{k+1,n} \leq b - \epsilon$, $\epsilon > 0$. Assuming that $(1-x^2)^{1/2}w(x)$ is bounded away from zero and infinity in $[-1, +1]$, similar inequalities can be obtained for all $x_{k,n}$ where $x_{k,n} = \cos \theta_{k,n}$. The Cotes numbers of the associated mechanical quadrature enter also in this discussion.

G. Szegő (Stanford, Calif.).